

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend the claims as shown below.

1-11. (Cancelled)

12. (Currently Amended) A synthesized silica glass optical member manufactured by:
providing a porous silica glass body;
heating the porous silica glass body to a temperature within a range of 500°C to 1000°C in an atmosphere containing hydrogen; and
sintering the porous silica glass body in an atmosphere containing a fluorine compound.

13-18. (Cancelled)

19. (Newly Presented) A synthesized silica glass optical member according to claim 12, wherein the heating precedes the sintering.

20. (Newly Presented) A synthesized silica glass optical member according to claim 12, wherein providing the glass body includes forming glass particles by flame hydrolysis of a raw material.

21. (Newly Presented) A synthesized silica glass optical member manufactured by:
providing a porous silica glass body;
heating the porous silica glass body in an atmosphere containing oxygen; and

after the heating step, sintering the porous silica glass body in an atmosphere containing a fluorine compound.

22. (Newly Presented) A synthesized silica glass optical member according to claim 21, wherein a temperature of said heating is within a range from 500°C to critical temperature below which the porous silica glass body does not shrink.

23. (Newly Presented) A synthesized silica glass optical member according to claim 21, wherein a temperature of said heating is 1250°C or below.

24. (Newly Presented) A synthesized silica glass optical member according to claim 21, wherein providing the glass body includes forming glass particles by flame hydrolysis of a raw material.

25. (Newly Presented) A synthesized silica glass optical member according to claim 21, wherein the fluorine compound comprises SiF_4 .